

## CLAIMS

1. A clamping collar comprising an open ring (10), each end of which carries a bearing tab (10A, 10B) provided with a bore (12A, 12B), and tightening means comprising a  
 5 tightening bolt (14), a nut (16), and a spacer (18, 118), the bolt having a shank (14B) that passes through the bores (12A, 12B) in the bearing tabs and a head (14A) situated beside one of the bearing tabs, the nut being situated beside the other bearing tab, and co-operating  
 10 with the shank of the bolt, at least a first one (16) of the two elements constituted by the head of the bolt and by the nut being suitable for being driven in rotation so as to tighten the bolt, and the spacer (18, 118) being disposed between said first element and the bearing tab  
 15 beside which said first element is situated;

said clamping collar being characterized in that the spacer (18, 118) is formed by a rolled-up blank (20) disposed around the shank (14B) of the bolt (14).

20 2. A collar according to claim 1, characterized in that the bearing tab (10B) against which the spacer (18, 118) is disposed is provided with a lip (24B) and in that the join plane (23, 123) between the two ends (21, 22; 121, 122) of the blank (20) from which the spacer is formed is  
 25 engaged under said lip (24B).

3. A clamping collar 1 comprising an open ring (10), each end of which carries a bearing tab (10A, 10B) provided with a bore (12A, 12B), and tightening means comprising a  
 30 tightening bolt (14), a nut (16), and a spacer (18, 118), the bolt having a shank (14B) that passes through the bores (12A, 12B) in the bearing tabs and a head (14A) situated beside one of the bearing tabs, the nut being situated beside the other bearing tab, and co-operating  
 35 with the shank of the bolt, at least a first one (16) of the two elements constituted by the head of the bolt and by the nut being suitable for being driven in rotation so

as to tighten the bolt, and the spacer (18, 118) being disposed between said first element and the bearing tab beside which said first element is situated;

said clamping collar being characterized in that the  
 5 spacer (18, 118) presents a first end edge (18A, 118A) co-operating with said first element (16) and a second end edge (18B, 118B) co-operating with the bearing tab (10B) against which the spacer is disposed, the first end edge being substantially perpendicular to the  
 10 longitudinal direction (D) of the spacer (18, 118) while, at least when the collar is in the tightened state, the second end edge (18B, 118B) is inclined relative to the perpendicular to said longitudinal direction, the inclination ( $\alpha_B$ ) of the second edge (18B, 118B) being  
 15 such that the length of the spacer increases in the direction going away from the ring of the collar.

4. A collar according to claim 3, characterized in that the bearing tab (10B) against which the spacer (18, 118)  
 20 is disposed presents a lip (24B), in that the spacer (18, 118) is formed by a rolled-up blank (20) disposed around the shank (14B) of the bolt (14), and in that the join plane (23, 123) between the two ends (21, 22; 121, 122) of the blank (20) from which the spacer is formed is  
 25 engaged under said lip (24B).

5. A collar according to claim 3 or 4, characterized in that the spacer (18, 118) is formed by a rolled-up blank (20) disposed around the shank (14B) of the bolt (14),  
 30 and in that the blank (20) that is rolled up to form the spacer (18) presents a width ( $l_1$ ,  $l_2$ ) that varies over the length of said blank.

6. A collar according to claim 5, characterized in that  
 35 the blank (20) that is rolled up to form the spacer (18) presents a maximum width ( $l_1$ ) in the vicinity of the join plane (23) between its ends (21, 22).

7. A collar according to any one of claims 3 to 6, characterized in that the spacer (118) is deformable over a portion of its periphery in its length direction.

5

8. A collar according to claim 7, characterized in that, before the collar is tightened, the spacer (118) presents a transverse slot (130) that extends over a portion of the periphery of the spacer situated on the side closer to the ring of the collar (10) and that is suitable for closing up at least in part when the collar is tightened.

9. A collar according to any one of claims 1 to 8, characterized in that the cross-section of said spacer (18) is flattened on the side closer to the ring (10), in the vicinity of its second end edge (18B) which co-operates with the bearing tab (10B) against which said spacer is disposed.

10. A collar according to any one of claims 1 to 9, characterized in that it is provided with wedging means (19A, 19B, 19C; 25A, 25B, 25C) for wedging the spacer (18) so that it is prevented from rotating relative to the ring (10).

25

11. A collar according to claim 10, characterized in that the bearing tab (10B) against which the spacer (18) is disposed has a lip (24B) under which the spacer is engaged, and in that said lip presents at least one rotation-preventing wedging facet (25A, 25B, 25C) which co-operates with a portion (19A, 19B, 19C) of the periphery of the spacer that is not circular.

12. A collar according to any one of claims 1 to 11, characterized in that the ring (10) presents a substantially V-shaped cross-section whose tip (11C) projects from the outside periphery of the ring.

13. A collar according to any one of claims 1 to 12, characterized in that the inside periphery of the spacer defines a channel (28) whose height (H) as measured in  
5 the plane (PA) in which the bearing tabs come towards each other while the collar is being tightened, is greater than the diameter (d) of the shank (14B) of the bolt (14).
- 10 14. A collar according to claim 13, characterized in that the height of the channel (28) is at least equal to 1.2 times the diameter (d) of the shank (14B) of the bolt (14).